



USER'S MANUAL

Ness R16 Radio Control Panel
OPERATION & PROGRAMMING MANUAL



Security Products

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*“Australia’s largest designer
and manufacturer of
high quality security products”*



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R16 USER’S MANUAL

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APPROVALS

EMC COMPLIANCE

EN 50130-4:1996 Part 4: Electromagnetic compatibility. Electrostatic Discharge, Radiated RF Immunity, Electrical Fast Transient/burst. Surge Immunity, Conducted RF Immunity, Voltage Dips and Interruptions, Mains Supply Variations.
AS/NZ CISPR 22:2002- Class B, Electromagnetic Radiation, Terminal Disturbance Voltage.
EN61000-6-3:2001, Harmonic Current Emissions, Voltage fluctuations and Flicker.

TELECOM

TBR21, EU. PTC200, NEW ZEALAND TELECOM. AS ACIF S002, AUSTRALIA

SAFETY

EN60950:2000 inc Country Deviations, Safety of Information Technology Equipment
AS/NZ3260-1993 incl. AMDTS 1,2,3 &4. TS001-1997 ACA Australian Communications Authority



NESS SECURITY PRODUCTS
Australian Communications Authority
TELECOMMUNICATIONS COMPLIANCE



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INTRODUCTION

The Ness R16 is a unique fully self-contained radio control panel.

The panel has a built-in keypad for programming and user operation, a built-in piezo siren, built-in LCD display, built-in radio receiver, built-in battery backup and built-in dialler.

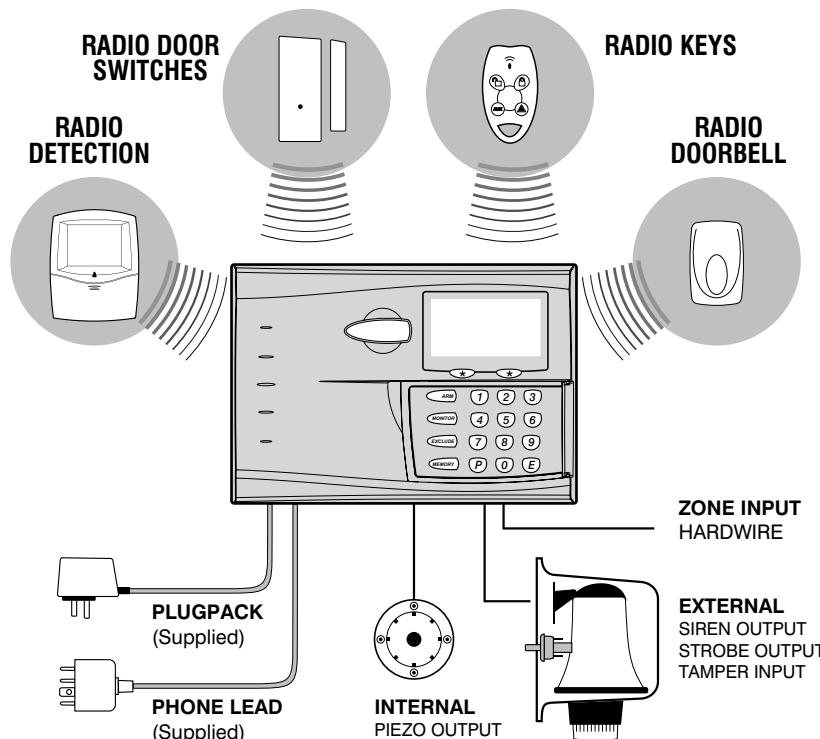
The R16 supports up to 16 Ness Radio PIRs and up to 14 Ness Radio Keys. All Ness supervised and encrypted radio devices are supported. There is even a Doorbell feature with selectable tunes when used with the Ness Radio Doorbell transmitter. (If the radio doorbell is available in the local frequency).

In addition to radio devices, the R16 has 1 hardwired zone and 1 hardwired tamper input for connection of a wired detection device and external siren cover tamper switch.

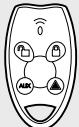
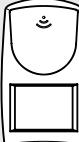
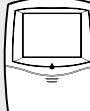
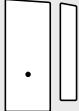
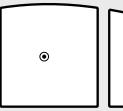
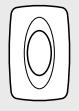
The built-in piezo siren provides high volume audible warning. The R16 also has Siren, Piezo and Strobe outputs for additional hardwired noisemakers.

The R16 has a number of sophisticated power saving features designed to provide at least 48 hours service running on the backup battery alone. (This includes one full alarm condition with sirens, strobe and dialler).

The built-in dialler uses Contact ID format for central station monitoring as well as audible monitoring to any telephone. The user can also dial into the system for remote arming and disarming over the telephone line.



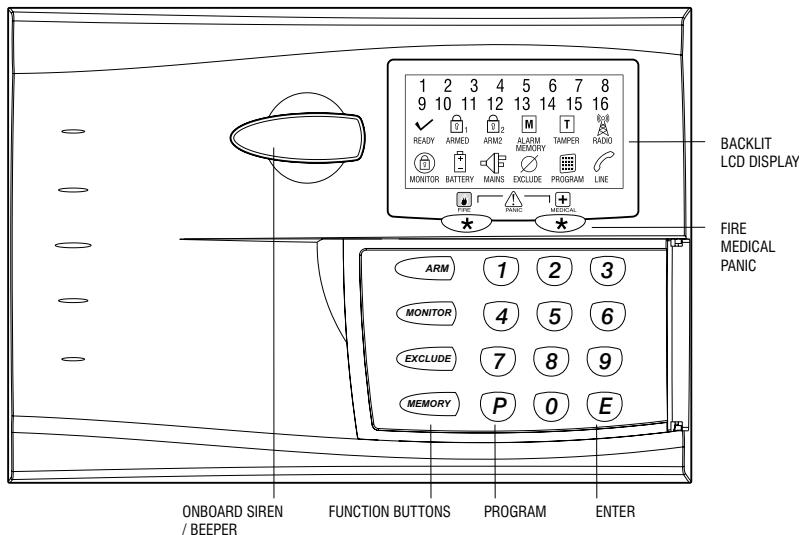
The Ness R16 supports all Ness radio devices as shown below. All late model Ness transmitters send encrypted transmissions to prevent eavesdropping and substitution. Ness fixed transmitters can send a regular supervision signal which the R16 monitors to ensure system security.

	100-067 RK4 4 Button Radio Key		100-663 R15 Radio PIR 100-663PET R15PET Radio PIR Pet Aware
	100-664 RK3 3 Button Radio Key		100-691 R12 Radio PIR inc Bracket
	100-683 RK1B 1 Button Radio Key Pendant		100-662 RR1 Radio Reed Switch
	100-056 RDB Radio Doorbell		100-527 RR2 Multi-Purpose Radio Transmitter
	100-283 RPB 1 Button Radio Panic Button		106-040 RSM Radio Smoke Detector
	100-001 RKP Radio Keypad		

R16 KEYPAD

AUDIBLE & VISUAL FEEDBACK

The R16 onboard keypad provides the facility for user level and installer level programming and all user operation and emergency functions. The keys are soft-touch silicon rubber and are backlit for high visibility. Any keypress will turn on the backlighting for 4 minutes.



OUTPUT

OUTPUT TYPE

DESCRIPTION

Keypad beeper	♪	SHORT BEEP	Keypad Acknowledge key press
	♪♪♪	3 BEEPS (RAPID)	Keypad Valid entry, end of Exit Time
	♪-♪	LONG BEEP	Keypad Invalid entry
	♪..8.♪	8 BEEPS (RAPID)	Low battery / AC Fail / Medical Alarm
	♪→	CONTINUOUS BEEPS	Alarm, Entry Delay, etc
Onboard Siren	1 CHIRP*	Arm	
External Siren output	3 CHIRPS*	Disarm	
Onboard Siren	DOORBELL TONES	The Doorbell has been pressed.	
Onboard Siren External Siren output	SIREN BURST, (Low Volume)	Zone Auto Exclude warning	
Onboard Siren Piezo output External Siren output	SIREN CONTINUOUS	Alarm condition	
Strobe output	STROBE BURST	Panel Armed or Disarmed	
	STROBE CONTINUOUS	Alarm condition	

* Arm/disarm chirps must be enabled by your installer.

KEYPAD DISPLAY IN OPERATING MODE

DISPLAY	OFF	● ON	FLASHING
ZONES 1-16	Zone is sealed	Zone is unsealed	Zone alarm
READY	Not ready to arm - unsealed zones or system faults	Ready to Arm	
1 ARMED	Disarmed	Armed	
MONITOR	Disarmed	Monitor Mode	
MAINS	Normal		Mains Power is off
BATTERY	Normal		The panel's backup battery is low
ALARM MEMORY	Normal	Memory Mode selected	New alarms in memory
EXCLUDE	Normal		Zones are excluded
TAMPER	Normal		Tamper alarm
RADIO	Normal	Receiving radio signal	Indicates that a Radio Key or other radio device has a low battery*
LINE	Normal	Dialler is on line	Phone line fault or failure to communicate
PROGRAM	Normal	User Program Mode	Installer Program Mode

* The flashing RADIO fault icon could be indicating that the radio key/device has either low battery or supervision failure or other radio related problems. The numeric display 1-15 will show which device is sending the signal.

See page 18: How to view memory.

See page 19: The table KEYPAD DISPLAY IN MEMORY REVIEW MODE provides further detail.

OPERATION

OPERATING MODES

The Ness R16 will operate in one of the following modes:

ARMED. The system is “On” and ready to detect intrusion.

DISARMED. The system is “Off”. This is the normal mode when the premises are occupied. Day Zones and 24 Hour Zones such as external siren tamper, if used, are active.

DAY MODE. The system is Disarmed and a zone or zones have been setup to create an alarm when activated. Often used as a doorway alert in a shop.

MONITOR MODE. Allows the system to be “partially” Armed. For example, in a house, to allow all perimeter zones, doors and windows, to be Monitored (armed) at night.

24HR ZONES. Zones that have been setup to be active in any mode. Usually used for Tamper switches and Panic buttons.

DOORBELL. The doorbell can be triggered using the optional Ness Doorbell transmitter. The doorbell function has adjustable volume and selectable chime settings. Operates in any panel mode.

ALARMS, DEFINITION

Alarms may be caused by:

- A zone has been triggered while Armed
- A Tamper has been triggered
- A PANIC button has been triggered

All of these may cause your sirens and strobe to operate. Various visual indications relevant to the alarm will be retained in the memory. If this occurs, Disarming your control panel will reset the alarm. The cause of the alarm can be identified by entering the Alarm Memory Mode as described on page 18.

RESETTING ALARMS

To stop the siren/s or to reset the strobe light if it is still flashing* (if installed), reset the panel using the keypad by entering a valid keypad code followed by the E button, or press the OFF button on a valid Radio Key.

To check the cause of the alarm, you can view the event memory as shown on page 18.

* In the event of an alarm, the strobe light will continue to flash until the panel is reset by the keypad or radio key, otherwise it will time out after 11 hours. (If mains power is disconnected, the panel will reset the strobe light output after 1 hour to conserve the backup battery).

OPERATION	KEYPAD	RADIO KEY
ARM The panel must be in a Disarmed state first.	<p>ARM [User Code] E</p> <p>Shortcut method, (If enabled by your installer). ARM E</p>	 <p>Press the ON button once.</p>
DISARM To Disarm and/or reset alarms.	[User Code] E	 <p>Press the OFF button once.</p>
MONITOR MODE The panel must be in a Disarmed state first.	<p>MONITOR [User Code] E</p> <p>Shortcut method, (If enabled by your installer). MONITOR E</p>	 <p>Press ON button twice within 4 seconds.</p>
PANIC	 <p>Both keys together</p> <p>Keypad Panic must be enabled by your installer.</p>	 <p>Radio Key Panic will function only if enabled by your installer.</p>
KEYPAD DURESS Keypad Duress should only be used by arrangement with your monitoring station.	<p>9 [User Code] E</p> <p>To Disarm and report a Duress Alarm, add the digit 9 before your User Code when Disarming. This will function only if enabled by your installer.</p>	 <p>Radio Key Duress will function only if enabled by your installer.</p>
EXCLUDING ZONES Zones can be Excluded when the panel is disarmed.	<p>EXCLUDE E</p> <p>...then press [Zone No.] E [Zone No.] E ... Enter the zone numbers to be Excluded.</p> <p>E To exit Exclude mode</p>	
VIEW MEMORY View Memory can be used when the panel is disarmed.	<p>MEMORY E</p> <p>...then press MEMORY repeatedly to display the last 20 events.</p> <p>E To exit Memory mode</p>	
DOORBELL		 <p>RDB Radio Door Bell. (Depending on availability in the regional frequency).</p>

Note:

Monitor Mode arming will be ignored if no monitor zones are programmed.

► ARMING

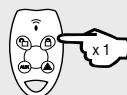
To Arm the system using the onboard keypad, press ARM followed by a valid user code, followed by the E key.

ARM + [User Code] + **E**

...or **ARM** + **E**

The Arming Shortcut is enabled by default, this allows arming without having to enter your user code. (The Arming Shortcut can be disabled by your installer).

To Arm the system using a Radio Key press the ON button.



If Siren Chirps have been enabled by your installer, the strobe light output will flash and the onboard siren will 'chirp' once to indicate successful arming.

The control panel must be armed to enable detection zones.

Arming the panel starts the exit delay timer. All zones are inactive during this time and become fully armed once the exit delay time expires. (End of exit delay is signalled by 3 beeps from the keypad beeper).

The factory default exit delay time is 60 seconds. This can be changed if necessary, see the programming section in this manual.

The panel must initially be in the disarmed state and not in Program, Monitor, Memory or Exclude modes.

Note: If the panel is already in alarm, you must first silence the alarm before you can arm.

At the end of the exit time, all zones should be **Sealed**. If any are **Unsealed**, the onboard siren and the external siren, (if installed), will sound a lower volume tone for 2 seconds as a warning that those zones have been automatically excluded. For maximum security, you should return, disarm the panel, check the premises and then Arm again. Continual warnings could mean that a detector is faulty and may have to be manually excluded.

If the auto-exclude option is disabled by your installer and a zone is unsealed at the end of exit time, the siren will sound for 5 minutes, (5 minutes is the factory default siren duration).

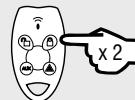
► MONITOR MODE

Ensure the system is disarmed before attempting to arm in Monitor Mode.

 + [User Code] + 
...or  + 

The Monitor Mode Shortcut is enabled by default, this allows arming of Monitor Mode without having to enter your user code.
(Monitor Mode Shortcut can be disabled by your installer).

To arm in Monitor Mode using a Radio Key, press the ON button twice within 4 seconds.



If Siren Chirps have been enabled by your installer, the strobe light output will flash and the onboard siren will 'chirp' once to indicate successful arming in Monitor Mode.

Monitor mode allows you to Arm selected zones while others are ignored. Typically, perimeter zones (doors and windows) can be monitored while you are at home.

Your installer must program which zones will be active in Monitor mode.

The panel must initially be in the disarmed state and not in Program, Monitor, Memory or Exclude modes.

Entry and Exit delay timers operate as normal in Monitor Mode.

If an alarm occurs while in Monitor mode, entering **[User Code]**  will silence the alarm. This will also Disarm the panel, so remember to enter monitor again if needed.

Using the optional Radio Keys you can enter Monitor Mode by pressing the ON button twice within 4 seconds.



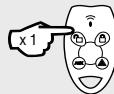
DISARMING

To Disarm the system using the onboard keypad, enter a valid user code, followed by the E key.

[User Code] + **E**

Sirens and strobe output, (if running), will be reset on disarming.

To Disarm the system using a Radio Key press the OFF button.



If Siren Chirps have been enabled by your installer, the strobe light output will flash and the onboard siren will 'chirp' three times to indicate successful disarming.

When you enter the protected premises through a delay zone, the keypad will sound continuous beeps as a reminder to disarm. The panel must be disarmed before the entry delay time expires, otherwise the alarm will sound.

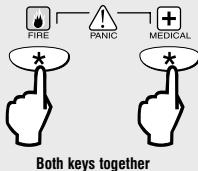
If using a Radio Key, you can disarm from outside the premises without having to enter any protected zones.

The factory default entry delay time is 20 seconds. This can be changed if necessary, see the programming section in this manual.

If you make a mistake in entering your code, press the E button and try again. Five incorrect code attempts will cause an alarm.

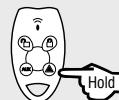
► PANIC ALARM

To generate a Keypad PANIC alarm using the keypad, press both * (star) keys together for 2 seconds.



The Keypad Panic function is enabled by default, and can be disabled by your installer.

To generate a PANIC alarm using a Radio Key, press and hold the Radio Key PANIC button for at least 4 seconds.



The Radio Key Panic function will only function if enabled by your installer.

The keypad PANIC function sounds the onboard siren and the external siren outputs. The sirens will reset when the Siren Reset Time has expired, (factory default is 5 minutes).

A Panic report will be sent by dialler if your system is monitored by a Central Station. (If PANIC reports have been enabled by your installer).

PANIC cannot be used while the panel is in Program, Memory or Exclude mode.

Note: Your installer may have installed a separate PANIC button. To activate the panic alarm simply press that button.

► DURESS ALARM

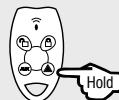
To generate a DURESS alarm using the keypad, add the digit '9' in front of your code when disarming.

9 + [User Code] + (E)

The Keypad Duress function is disabled by default, and must be enabled by your installer.

IMPORTANT NOTE: Your installer must program the R16 to enable Radio Key Panic to act as the DURESS alarm. This means Radio Key Panic will no longer be available.

If enabled by your installer, to generate a DURESS alarm using a Radio Key, press and hold the Radio Key PANIC button for at least 4 seconds.



The DURESS alarm can be used to send a silent alarm to the Central Station that you are being forced to disarm the panel against your will. That is; you are disarming under "duress."

To Disarm and send a DURESS alarm, prefix your User Code with the digit 9 when Disarming.

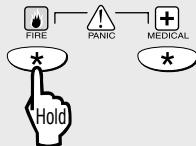
* DURESS ALARM IS NORMALLY NOT ENABLED. TO ENABLE THE DURESS FUNCTION, CONSULT YOUR INSTALLER

* DURESS ALARMS CAN ONLY BE USED IF YOUR SYSTEM IS MONITORED BY A CENTRAL STATION.

* THE DURESS ALARM DOES NOT SOUND ANY SIREN OUTPUTS AND CAN ONLY BE REPORTED BY DIALLER TO YOUR CENTRAL STATION.

► FIRE ALARM

To generate a FIRE alarm using the keypad, press and hold the FIRE key, (left hand star key), for at least 2 seconds.



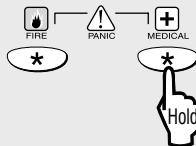
The Keypad Fire alarm function is disabled by default, and must be enabled by your installer.

The FIRE Alarm cannot be generated by a Radio Key.

The FIRE alarm sounds the siren outputs using the Fire siren sound and the dialler reports a fire alarm.

► MEDICAL ALARM

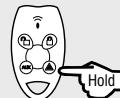
To generate a MEDICAL alarm using the keypad, press and hold the MEDICAL key, (right hand star key), for at least 2 seconds.



The Keypad Medical alarm function is disabled by default, and must be enabled by your installer.

IMPORTANT NOTE: Your installer must program the R16 to enable Radio Key Panic to act as the MEDICAL alarm. This means Radio Key Panic will no longer be available.

If enabled by your installer, to generate a MEDICAL alarm using a Radio Key, press and hold the Radio Key PANIC button for at least 4 seconds.



The primary purpose of this alarm is to report a MEDICAL alarm to your central station. The keypad beeper sounds 8 rapid beeps to indicate that the Medical alarm has been triggered.

OPERATION - DOORBELL



DOORBELL

If a Ness Radio Doorbell has been installed, simply press the button once.

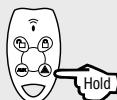


Radio Doorbell transmitter.

The doorbell tune is heard through the R16 onboard siren. The doorbell volume and the tune can be set by the user.

IMPORTANT NOTE: The R16 can be programmed to allow Radio Key Panic to act as the DOORBELL. This means Radio Key Panic will no longer be available.

If enabled by your installer, to sound the Doorbell, press and hold the Radio Key PANIC button for at least 4 seconds.



See pages 24 & 25 for doorbell volume and doorbell tune programming.

If a Ness Radio Doorbell has been installed, simply press the button once.

The R16 can also be programmed to operate the doorbell from the Panic button of Ness radio keys. Note that in this case, the R16 cannot receive Panic alarms from radio keys.

► EXCLUDING ZONES

EXCLUDING ZONES

To EXCLUDE zones, the R16 must be in the disarmed mode.

① Press...  + [User Code] + 

or...  + 

► The  EXCLUDE icon will turn on.

② Enter the zone number of the zone/s to be excluded, (1-16).

[Zone No.] +  + [Zone No.] +  ...etc

The zone light of each Excluded zone will turn on.

③ Press...  to exit Exclude mode.

► The  EXCLUDE icon will flash continuously until the panel is next disarmed.

If a detector becomes faulty and cannot be sealed when arming the panel, that zone can be Excluded so that it does not cause alarms.

When zones have been Excluded, the EXCLUDE icon flashes continuously while the panel is Disarmed and also when Armed.

Zones can only be excluded while the panel is disarmed.

Zone Exclude is **not permanent**. Excluded zones are automatically Included next time the system is disarmed.

Zones can be manually included by the same method as Excluding. Simply use the **[ZONE NUMBER] ** sequence to turn OFF the zone icons to be Included.

► VIEWING MEMORY

- ① Press... **MEMORY** + [User Code] + **E**
or... **MEMORY** + **E**
- The **M** **MEMORY** icon will turn on.
- ② Press... **MEMORY** *The most recent event will be displayed.*
Press... **MEMORY** *The next most recent event will be displayed.*
Press... **MEMORY** *...and so on (up to the last 20 events).*
- ③ Press... **E** to exit Memory mode.

The R16 control panel stores a comprehensive event memory including Arming, Disarming, Low Battery, Mains Fail and Alarms.

The memory is constantly upgraded and the last 20 events are always available for viewing.

This memory display can only be selected while the panel is in the Disarmed state.

TO CLEAR THE MEMORY ICON

The MEMORY icon on the LCD display flashes continuously when an alarm has occurred as a reminder to view the alarm memory.

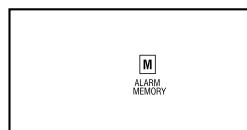
The MEMORY icon stops flashing after the memory is viewed as shown above.

The MEMORY icon is automatically cleared next time the panel is Armed and on entry to program mode.

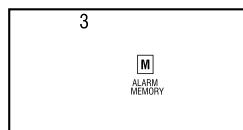
KEYPAD DISPLAY IN MEMORY REVIEW MODE

EVENT	DISPLAY ICONS
Arm	ARMED
Disarm	blank
Auto Exclude Zone	EXCLUDE + 1...16
Mains Fail	MAINS
Panel Panic/Medical/Fire	EXCLUDE
Battery Fail	BATTERY
Line Fault	LINE
Dialler Call Fail	LINE
Zone Alarm	1...16
Tamper Panel/Siren	TAMPER
Tamper(4 th failed attempts)	TAMPER + PROGRAM
Radio Jamming	RADIO
Radio Substitution	RADIO
Radio Key Low Battery	RADIO + BATTERY + 2...15
Radio Key Panic/Medical	RADIO + EXCLUDE
Detector Tamper	RADIO + TAMPER + 1...16
Detector Low Battery	RADIO + BATTERY + 1...16
Detector Supervision Fail	RADIO + 1...16
Pendant Supervision Fail	RADIO + MONITOR + 1...15

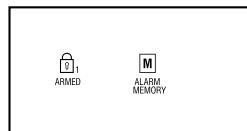
MEMORY REVIEW EXAMPLES



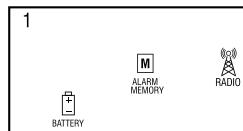
Panel was Disarmed.



Zone 3 alarm.



Panel was Armed.



Low Battery from radio device 1.

MONITORING

CENTRAL STATION MONITORING



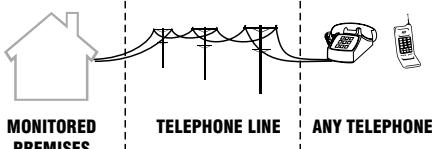
CENTRAL STATION MONITORING

The R16 control panel has an on-board digital dialler which can send detailed alarm messages to a Central Monitoring Station.

The digital messages can include information about the zone or zones which caused the alarm, tamper alarms, low battery or mains failure reports, and it can also (by user number) identify the users who Arm and Disarm the system.

For further information about alarm monitoring, contact your dealer.

AUDIBLE MONITORING



NOTE:

The R16 can be monitored by Central Station or by Voice Dialling to a private phone, but not by both simultaneously.

Any telephone numbers programmed in options P70E & P71E must be erased to allow the Voice Dialling telephone numbers to work. (Ask your installer).

NESS VOICE DIALLING

The dialler sends alarm reports to a private telephone, (mobile telephone or fixed telephone), using Voice Dialling Telephone numbers 1 and 2, (P00E, P01E).

ENABLING VOICE DIALLING

Voice Dialling Format is enabled simply by programming the Voice Dialling phone number options P00E and P01E. (See side note. Central Station Monitoring must be disabled to enable Voice Dialling).

OPERATION

The word 'ALARM' is repeated for 30 seconds until the alarm is acknowledged (see below). If the alarm is not acknowledged the telephone number will be redialed.

ACKNOWLEDGING THE ALARM

The person receiving the call can acknowledge the alarm by pressing the # key on their telephone. Press the # key for 2 seconds during pauses in the audible message. (On mobile phones, press the # key in short bursts. Many mobile phones enter sub menus if the # key is pressed continuously).

AUDIBLE FEEDBACK



3 BEEPS:

Valid command/user code.



1 LONG BEEP:

Invalid command or user code, try again.

NOTES

If the R16 does not receive remote commands for periods longer than 60 seconds it will assume that the call is finished and it will hang up.

SUMMARY OF TELEPHONE COMMANDS

0 PREPARE TO RECEIVE COMMANDS.

[User Code] **#**
VERIFIES THE USER.

1 **#** ARM.

2 **#** DISARM.

***** **#** HANG UP.

REMOTE TELEPHONE ARM/DISARM

The R16 can be armed and disarmed remotely using a standard fixed or mobile telephone.

To maintain panel security, remote operations can only be activated after entering a valid user code.

To operate the R16 by telephone, you need a DTMF capable telephone, a valid User Code and you must know the Telephone number of the line to which the R16 is connected.

Remote Operation is disabled by default and must be enabled by your installer before it can be used.

SEQUENCE OF OPERATION.

1. Phone the R16 telephone number and listen for the required number of double rings and then hang up.
2. Call the number again within 60 seconds.
3. The R16 will answer the second call immediately, sound a beep for 2 seconds then, after a pause, it will sound a lower frequency tone. The R16 is now ready to receive telephone commands.
4. Press the **0** button on the telephone. This tells the R16 that telephone commands will follow.
5. Now enter a valid User Code followed by the **#** button.
The R16 will respond with 3 beeps if it recognises the code or 1 long beep to signal the code was invalid and to try again.
6. Enter the command to arm or disarm the panel.
See: Summary Of Telephone Commands.
7. Press ***** **#** to finish. This tells the R16 to hang up. Also hang up your telephone.

PROGRAMMING

Various system options can be programmed by the user. These options can only be accessed from Program Mode.

User Codes or **Radio Keys** can be added or deleted. Up to 15 keypad user codes or 14 Radio Keys or a mixture of both can be programmed.

Entry and Exit timers can be changed if necessary, (between 1 and 99 seconds).

The **Doorbell Tune and Volume** can be programmed.

For all other programming changes, ask your installer.

The panel will automatically exit Program Mode if no buttons are pressed for 4 minutes.

To ENTER Program Mode

(P) + [Master Code] + (E)

To EXIT Program Mode

(P) + (E)

The factory default
Master Code is: **123**

PROGRAMMING OPTIONS TABLE

OPTION NUMBERS	DESCRIPTION	DEFAULT
P5E	DOORBELL VOLUME	Level 3
P6E	DOORBELL TUNE	Tune 3
P26E	ENTRY DELAY TIME	20 seconds
P28E	EXIT DELAY TIME	60 seconds

RADIO CODES	KEYPAD CODES		
P10E	P11E	USER SLOT 1	MASTER KEYPAD CODE
	2E	USER SLOT 2	
	3E	USER SLOT 3	
	4E	USER SLOT 4	
	5E	USER SLOT 5	
	6E	USER SLOT 6	
	7E	USER SLOT 7	
	8E	USER SLOT 8	
	9E	USER SLOT 9	
	10E	USER SLOT 10	
	11E	USER SLOT 11	
	12E	USER SLOT 12	
	13E	USER SLOT 13	
	14E	USER SLOT 14	
	15E	USER SLOT 15	

User Slots 2 to 15 can store either a Keypad Code or a Radio Key, not both. If a user Slot is programmed as a Radio Key using option P10E, then that slot is not available as a Keypad Code and vice versa.

PROGRAMMING - DOORBELL



TO PROGRAM A RADIO DOORBELL

ACTION	NOTE
① Program the Ness Radio Doorbell to an available User Slot.	See page 26. "To Program Radio Keys"
② Program Extra Option 5E for that User Slot.	See page 27. "Extra Options For Radio Codes"

EXAMPLE: To program a Radio Doorbell to User Slot 15.

In Program Mode:

1. Press... **P10E 15E**
2. Press and hold the Radio Doorbell button for 8 seconds.
3. Press... **P25E 5E**



TO PROGRAM DOORBELL VOLUME

ACTION	NOTE
① Press... (P) + [Master Code] + (E)	Enters Program Mode. The  PROGRAM icon will turn on.
② Press... (P) + (5) + (E) The current doorbell tune will be played at the current volume level. The display will show a number between 1 & 4 to show the current volume level. (1=lowest, 4=highest). Factory default is 3.	P5E is the programming option number for Doorbell Volume.
③ Press... (1 - 4) + (E) Each time you select a level the current doorbell tune will play once at that volume.	E.g, Press 1E, 2E, 3E or 4E to select Lowest, Low, Medium or High volume.
④ Go to step 2 of any other programming option or press... (P) + (E) to exit program mode.	The  PROGRAM icon will turn off when you exit program mode.



TO PROGRAM DOORBELL TUNE

ACTION	NOTE
① See step 1 of Doorbell Volume Programming, or if already in program mode, continue to step 2.	
<p>② Press... (P) + (6) + (E)</p> <p>The current doorbell tune will be played and the display will show the tune number from 1 to 9. The factory default tune is number 3.</p>	P6E is the programming option number for Doorbell Tune.
<p>③ Press... (1 - 9) + (E)</p> <p><i>E.g. Press 1E through 9E to find the tune you prefer.</i></p>	AVAILABLE TUNES <ul style="list-style-type: none"> 1 Westminster 2 Westminster (4 notes only) 3 Ding Dong 4 Ding Dong, (repetitive) 5 Star Spangled Banner 6 Fur Elise 7 Home Sweet Home 8 Greensleeves 9 Chime
④ Go to step 2 of any other programming option or press... (P) + (E) to exit program mode.	The  icon will turn off when you exit program mode.

See page 16 for Doorbell Operation.

PROGRAMMING - RADIO KEYS

The R16 will accept up to 14 Ness Radio Keys to be used for remote control wireless Arming/Disarming and Panic functions.

Radio Keys are programmed to one of the 15 User Slots with the easy to use radio 'Learn' mode. A User Slot can hold either a keypad code or a radio key code, not both. User Code 1, (the master Code), is always a keypad code.



TO PROGRAM RADIO KEYS

ACTION	NOTE
① Press... (P) + [Master Code] + (E)	Enters Program Mode. The  icon will turn on.
② Press... (P) + (1) (0) + (E) Numbers 2 to 15 on the display will show which User Slots already contain Radio Keys, (if any).	P10E is the option number for programming Radio Keys.
③ Press... (2 - 15) + (E) The chosen User Slot number will be flashing. User Slots with Radio keys already programmed will be on steady.	Choose a User Slot to program a Radio Key. Enter a user slot number from 2 to 15 followed by the E button.
④ Press and hold the PANIC button for at least 8 seconds on the Radio Key to be programmed. If the Radio Key was successfully programmed, you will hear beep, beep + 3 beeps.	This transmits the 'Learn' message to the R16 panel. A long beep means the Radio Key is already programmed to another User Slot.
⑤ See Extra Options For Radio Codes on the next page to program the behaviour of the Radio Key's Panic button. Or skip to step 6 to leave the factory default. (Panic button triggers Panic Alarm).	
⑥ Go to step 2 of any other programming option or press... (P) + (E) to exit program mode.	The  icon will turn off when you exit program mode.

TO DELETE RADIO KEYS

① To delete a Radio Key, press P10E, select the User Slot to delete (2E-15E), then press P10E again. EXAMPLE: To delete the Radio key programmed on User Slot 2. Press... P10E 2E P10E	The panel must be in Program Mode.
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HOW TO SEND THE LEARN MESSAGE - PORTABLE TRANSMITTERS

This table shows the method for sending the programming 'Learn' message for compatible Ness transmitters.



RK4 RADIO KEY

Press and hold
Panic for 8
seconds.



**RDB RADIO
DOORBELL**

Press and hold
for 8 seconds.



**RK1B RADIO
PANIC**

Press 3 times.



**RKP RADIO
KEYPAD**

Insert the battery or
consult the Radio
Keypad manual.

EXTRA OPTIONS FOR RADIO CODES

Each User Slot has five Extra Options which control the behaviour of Radio Keys and the Radio Doorbell transmitter.

The Extra Options are:

- 1E, Panic:** The Panic Button will trigger the Panic alarm. (default).
- 2E, Duress:** The Panic Button will trigger the Duress alarm.
- 3E, Medical:** The Panic Button will trigger the Medical alarm.
- 4E, Ignore Panic:** Disables Panic Button on radio keys.
- 5E, Doorbell:** The Panic Button will sound the R16 doorbell feature.*

Each User Slot is defaulted for Extra Option 1E, trigger Panic.

The Extra option for a user code slot can be programmed after a radio key has been programmed to that slot.

PROGRAMMING SEQUENCE FOR EXTRA OPTIONS

1. Press: **P [User Slot option number 12-25] E**
 - If a Radio Key is programmed to the User Slot, the RADIO icon will be on. Icons 1–5 show which Extra Option is currently selected.
2. Press: **[1–5] E**
 - This selects a new Extra Option.

EXAMPLE

When programming a Radio Doorbell*, the User Slot must be set for 'Doorbell' or the Panic alarm will be triggered when the doorbell is pressed.

In this example, a Radio Doorbell has been programmed to User Slot 15. To program the Extra Option for User Slot 15, in program mode, press: **P25E 5E**

PROGRAMMING - KEYPAD CODES

(1) (2) (3)
(4) (5) (6)
(7) (8) (9)
(P) (0) (E)

TO PROGRAM KEYPAD CODES

ACTION	NOTE
① Press... (P) + [Master Code] + (E)	Enters Program Mode. The  icon will turn on.
② Press... (P) + [11-25] + (E) Enter the option number for the Keypad Code you are programming.	The existing code will be displayed one digit at a time.
③ Press... (NEW CODE) + (E) (NEW CODE) + (E) Enter the new code twice for verification. EXAMPLE: To program Keypad Code 2 to be 1234: Press... P12E 1234E 1234E	You will hear one beep on the first entry of the new code and three beeps when the code is verified. The new code will be displayed one digit at a time.
④ Go to step 2 of any other programming option or press... (P) + (E) to exit program mode.	The  icon will turn off when you exit program mode.

TO DELETE KEYPAD CODES

① To delete a Keypad Code, enter the MEMORY button in place of the code. EXAMPLE: To delete the Keypad Code 2: Press... P12E MEMORY E	The panel must be in Program Mode.
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NOTES ON PROGRAMMING KEYPAD CODES

- Keypad Codes can be 3 to 6 digits in length.
- Codes beginning with 0 (zero) can be programmed but they will not operate the panel - this is an alternative method for disabling user codes. The MEMORY E function is the recommended method of deleting user codes.
- All codes must be unique to each other. Codes are rejected if already used. Some codes that are similar to existing codes may also be rejected.
- User Code 1 (Master Code) can be changed but it can not be deleted. The MEMORY + E sequence simply reverts User Code 1 back to factory default of 123.
- Open/Close reports, (if enabled by your installer), are identified by user number if the control panel is central station monitored.
- Shortcut arming, (ARM + E, (if enabled), is identified to the central station as User 25.



TO PROGRAM ENTRY DELAY TIME

ACTION	NOTE
<p>① Press... (P) + [Master Code] + (E)</p>	<p>Enters Program Mode. The  icon will turn on.</p>
<p>② Press... (P) + (2) (6) + (E) P26E is the option number for Entry Delay Time.</p>	<p>The existing time will be displayed one digit at a time. The factory default time is 20 seconds.</p>
<p>③ Press... (NEW TIME) + (E) Enter a new entry delay time from 1 to 99 seconds.</p> <p>EXAMPLE: To make the entry delay time 25 seconds: Press... P26E 25E</p>	<p>The new time will be displayed one digit at a time.</p>
<p>④ Go to step 2 of any other programming option or press... (P) + (E) to exit program mode.</p>	<p>The  icon will turn off when you exit program mode.</p>



TO PROGRAM EXIT DELAY TIME

ACTION	NOTE
<p>① See step 1 of Entry Delay programming, or if already in program mode, continue to step 2.</p>	<p>When in Program Mode. The  icon is on.</p>
<p>② Press... (P) + (2) (8) + (E) P28E is the option number for Exit Delay Time.</p>	<p>The existing time will be displayed one digit at a time. The factory default time is 60 seconds.</p>
<p>③ Press... (NEW TIME) + (E) Enter a new exit delay time from 1 to 99 seconds.</p> <p>EXAMPLE: To make the exit delay time 50 seconds: Press... P28E 50E</p>	<p>The new time will be displayed one digit at a time.</p>
<p>④ Go to step 2 of any other programming option or press... (P) + (E) to exit program mode.</p>	<p>The  icon will turn off when you exit program mode.</p>

SPECIFICATIONS

RADIO ZONES	16
HARDWIRED ZONES	1 (operates in series with zone 16)
HARDWIRED TAMPER ZONES	1
RADIO COMPATIBILITY	Ness supervised & encrypted radio devices
DIALLER FORMAT	Contact ID Format Audible Voice Format
ON BOARD KEYPAD	Backlit, programming & user functions
LCD DISPLAY	High contrast icon display
PLUG PACK	220-240V AC 50-60Hz, output 17V AC @300mA
QUIESCENT CURRENT DRAW	10 mA (in power save mode if mains is off)
BUILT-IN BACKUP BATTERY	12 volt 0.8 Amp/hour, sealed lead acid
DYNAMIC BATTERY TEST	Every Hour and on arming/disarming
FUSES	Siren Output, 2A Auto-reset Strobe, 1.5A Auto-reset Piez Output, 500mA Auto-reset Built-in Piezo, 500mA Auto-reset
SIREN OUTPUT	1 x 8 Ohm horn speaker max.
ON BOARD PIEZO SIREN	110 dB
PIEZ (RESET) OUTPUT	12V DC 300mA max.
STROBE OUTPUT	12V DC, 1 strobe light max.
DIMENSIONS	210(w) x 145(h) x 40(d) mm



R16
RADIO PANEL

INSTALLATION RECORD

Date Installed:	
Installation Company:	
Telephone:	
Monitoring Company:	
Telephone:	

Doorbell Volume	
Doorbell Tune	
Entry Delay Time	Seconds
Exit Delay Time	Seconds

Zone	Description	Zone	Description
1		9	
2		10	
3		11	
4		12	
5		13	
6		14	
7		15	
8		16	

USER SLOT	USER'S NAME	USER TYPE	
		KEYPAD	RADIO CODE
User Code 1 (Master Code)		YES	<input checked="" type="checkbox"/>
User Code 2			<input type="checkbox"/>
User Code 3			<input type="checkbox"/>
User Code 4			<input type="checkbox"/>
User Code 5			<input type="checkbox"/>
User Code 6			<input type="checkbox"/>
User Code 7			<input type="checkbox"/>
User Code 8			<input type="checkbox"/>
User Code 9			<input type="checkbox"/>
User Code 10			<input type="checkbox"/>
User Code 11			<input type="checkbox"/>
User Code 12			<input type="checkbox"/>
User Code 13			<input type="checkbox"/>
User Code 14			<input type="checkbox"/>
User Code 15			<input type="checkbox"/>

NESS LIMITED WARRANTY:

Ness Security Products Pty Ltd warrants its products to be free from manufacturing defects in materials or workmanship for the warranty period as detailed in Ness' Terms and Conditions of Sale and all other obligations detailed in those Terms and Conditions. Whilst Ness Security Products, the manufacturer, is accredited to ISO9001 and all possible care and diligence has been applied during manufacture to ensure the reliable operation of this unit, there are various external factors that MAY impede or restrict the operation of this unit in accordance with the product's specification.

These factors include, but are not limited to,

1. Failure to communicate to the monitoring company due to a telephone service provider's line fault or due to the incorrect configuration of the telephone/Product to the Telephone Network. It is the responsibility of a qualified Installer to ensure correct configuration to the telephone network.
2. Erratic or reduced radio range as detailed in the manufacturer's specifications. Ness' radio based products are sophisticated low power devices however the presence of in-band radio signals, high power transmissions or interference caused by electrical appliances e.g. computers, televisions etc. MAY reduce the range performance. Whilst such occurrences are unusual, they are possible none the less. If a problem such as this is encountered and the performance is unsatisfactory, the installer of the product should be contacted immediately.
3. Unauthorised tampering, physical damage, electrical interruptions such as mains failure, electrical spikes or lightning.

Ness Security Products is not an insurer of either property or safety of the user and limits its liability for any loss or damage including incidental or consequential damages to Ness' original selling price. There are no warranties, expressed or implied, which extend beyond the description on the face hereof. Ness Security Products recommend that the system is tested weekly to confirm reliable operation.